



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,995	03/26/2002	Norio Kashiwa	ZU-411	8981

21839 7590 12/07/2004

BURNS DOANE SWECKER & MATHIS L L P
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

LU, C CAIXIA

ART UNIT	PAPER NUMBER
----------	--------------

1713

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,995

Applicant(s)

KASHIWA ET AL.

Examiner

Caixia Lu

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8 and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) 11-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Request for Continued Examination

1. The request for continued examination (RCE) under 37 C.F.R. § 1.114 is acceptable. An action on the RCE follows.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

3. Claims 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Brant et al. (US 5,475,075) for the same rationale as set forth in the previous Office action mailed on May 4, 2004.

Claim Rejections - 35 USC § 103

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Markel (US 6,444,773) for the same rationale as set forth in the previous Office action mailed on May 4, 2004.

Response to Arguments

5. Applicant's arguments filed November 3, 2004 have been fully considered but they are not persuasive.

Applicants argue that Brant does not disclose the invention of claim 8 with "sufficient specificity" to constitute an anticipation under the statute, Brant merely speculates that theoretically, α -olefins up to 100 carbon atoms and Brant's claims are restricted to α -olefins of C₁₀₋₃₀, therefore, the rejections under 35 U.S.C. 102(b) over Brant should be withdrawn. This is incorrect. In view Brant's patent as whole, it is clear

that Brant discloses α -olefins of C₁₀₋₁₀₀ as known compound and all of the α -olefins can be use to prepare branch polymer, there is nothing in Brant that teaches α -olefins with carbon atoms as high as 100 cannot be obtained. Applicants further argue that Mr. Matsuo's Declaration filed September 28, 2004 shows that the invention defined by claim 8 provides unexpected results. However, the Declaration only show when the macromer with weight average molecular weight at 4,500 and 9000 at polymerization time of 10 or 30 minutes, the incorporation percentages of the macromers are low compared to macromer with weight molecular weight of 3,500 and 2,000. Neither the applicants have indicated nor the examiner is able to identify any relevance between Brant's teaching and the Declaration. Because Brant does teach the α -olefins with up to 100 carbon atoms (both weight molecular weight and number molecular weight are about 1400) which encompasses the instant claims, thus, the rejection is still deemed to be proper.

Applicants argue that there is no motivation in Markel to produce α -olefin macromers having a weight average molecular weight as low as 600-3500 of claim 8. The examiner disagrees. As stated in the previous Office action, "Markel does expressly claim a vinyl terminated macromer of average number molecular weight as low as 1500 and Mw/Mn as low as 2.1 which meets the amended molecular weight limitation (claim 1 of col. 16)". A quick analysis of the data of Examples 1-7 listed in Tables 1 and 2, a skilled artisan would have concluded that low molecular weight macromers such as low as 1500 can be prepared by lowering the MAO/catalyst ratio and increasing the concentration the catalyst in the reaction media. Mr. Matsuo's

Declaration failed to shown criticality and unexpected results in two folds. First of all, the instant claims are directed to the macromer rather than a branches polymer prepared from the macromer, applicants need to show that it is not obvious to prepare a macromer with the molecular range of instant claim 8 from Markel's teaching, however, what is shown is that the macromer with higher molecular weight than that claim 8 can not be copolymerized easily. Therefore, the showing is not relevant to the current rejections. Secondly, the showing is under very limited conditions, it is not based on the best mode of the cited prior art. Since applicants have not yet meet the burden of showing criticality and unexpected results over the outstand rejections under 35 U.S.C. 103(a) as shown above, thus, the rejections are maintained.

Conclusion

6. This is a RCE of applicant's earlier Application No. 10/088,995. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 1713

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caixia Lu whose telephone number is (571) 272-1106. The examiner can normally be reached from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful and the matter is urgent, the examiner's supervisor, David Wu, can be reached at (571) 272-1114. The fax numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1700.



Caixia Lu, Ph. D.
Primary Examiner
November 30, 2004